Journal of Applied Polymer Science

Contents

Volumes 35 and 36, 1988

Volume 35

Issue No. 1, January 1988

Changes of Non-Newtonian Behavior of Carboxylated Acrylate Dispersions During Alkalinization
O. Quadrat 1

Copolymerization of Vinyl Chloride with 1-Olefins. Part IV. Investigation of Rheological and Mechanical Properties of Copolymers
Z. Mrázek, M. Kolínský, I. Horáček, and J. Černoch 7

Sorption of Methylene Chloride in Polyethylene Terephthalate
C.-P. A. Liu and P. Neogi 21

Structure of Skin Layer in Injection-Molded Polypropylene
M. Fujiyama, T. Wakino, and Y. Kawasaki 29

The Non-Fickian Diffusion of Deterrents into a Nitrocellulose-Based Propellant
D. A. Winkler and A. Starks 51

Formation of Primary Particles in Vinyl Chloride Polymerization
B. Törnell and J. Uustalu 63

Structure and Properties of *p*-Carboxysuccinanilic Polyester Resins
M. H. Nosseir, N. L. Doss, and S. Y. Taufik 75

Linear Polythioesters. XIII. Products of Polycondensation of Isomeric Di(mercaptomethyl)–Dimethylbenzenes with Adipoyl and Sebacoyl Chlorides
W. Podkościelny and S. Szubińska 85

Photoacoustic Monitoring of Adhesive Curing
A. Torres-Filho, L. F. Perondi, and L. C. M. Miranda 103

Graft Copolymerization of Methoxypoly(ethylene Glycohol) Methacrylate onto Polyacrylonitrile and Evaluation of Nonthrombogenicity of the Copolymer
H. Miyama, H. Shimada, N. Fujii, Y. Nosaka, and Y. Noishiki 115

Grafting of Poly(α-Chloroacrylonitrile) (α-PClAN) on Carbon Black and Electrical Properties of α-PClAN-Grafted Carbon Black Compositions
S. Miyauchi, N. Mino, H. Balard, E. Papirer, and J. B. Donnet 127

The Immobilization of Enzymes onto Hydrolyzed Polyethylene-*g*-co-2-HEMA
C. G. Beddows, M. H. Gil, and J. T. Guthrie 135

Selective Permeation of Carbon Dioxide through Synthetic Polymer Membranes Having Pyridine Moiety as a Fixed Carrier
M. Yoshikawa, T. Ezaki, K. Sanui, and N. Ogata 145

Study of the Curing Process Giving the Rigid Polyurethane Foam by Dynamic Viscoelastic Method
Y. Nabata, A. Mamada, and H. Yamasaki 155

Influence of Molecular Weight Distribution on the Linear Viscoelastic Properties of Polymer Blends
C. D. Han 167

Nylon 6,6 Copolyamides of Bis(2-Carboxyethyl) Methylphosphine Oxide
J. S. Ridgway 215

Common Thermoanalytical Characteristics of Durable Press Reactants Based on Cyclic Ureas
B. J. Trask-Morrell and B. A. Kottes Andrews 229

Polyurethane-Based Sealants Modified by Blending with Kraft Lignin
D. Feldman, M. LaCasse, and R. St. J. Manley 247

Structures, Properties, and Alkali Metal Ion Transport Membrane of Polyelectrolyte Complexes Consisting of Methyl Glycol Chitosan, Glycol Chitosan, and Poly(vinyl sulfate)
Y. Kikuchi, N. Kubota, and H. Mitsuishi 259

NOTES

Density and Thermal Expansion of a Trifluoropropylsiloxane Polymer in Solution
M. R. Gomez-Antón and A. Horta 273

Issue No. 2, February 5th, 1988

Micromechanisms of High-Energy Peel Failure in Polyester-Aluminum-Polyester Laminates
D. J. Brown, P. Lamb, and A. H. Windle 279

Characterization of Styrene-Methyl Methacrylate-*n*-Butyl Acrylate Terpolymers. I. Average Diad Concentration Determined by ^{1}H-NMR
M. Kobayashi 299

Characterization of Styrene-Methyl Methacrylate-*n*-Butyl Acrylate Terpolymers. II. Effects of Sequence Distribution on Glass Transition Temperature
M. Kobayashi 311

High Activity Mixed Metal Alkyl Cocatalysts for α-Olefin Polymerization
R. Bacskai 321

Effect of Flaw Size on Tensile Rupture and Morphology of Fracture Surface of Synthetic Rubbers with Special Reference to Rocket Insulator Compound
A. S. Deuri and A. K. Bhowmick 327

van der Waals Model for Filled Rubbers with Modified Interfacial Contacts
H. G. Kilian and H. Schenk 345

Development of Crystalline Structure during Tubular Film Blowing of Low-Density Polyethylene
T. H. Kwack and C. D. Han 363

Photopolymerization of Vinyl Monomers Using Benzophenone-Tetrahydrofuran Initiation System and Aldehydes at Low Temperatures
S. Matsuzawa, K. Yamaura, S. Yamada, Y. Shinke, Y. Nakano, and Y. Koike 391

Synthesis of Polymer Materials by Low Energy Electron Beam. III. Effects of Polymerization Temperature in EB Solid-State Polymerization of Semicrystalline Urethane-Acrylate Film
M. Ando and T. Uryu 397

Rheological Properties of Liquid Crystalline Solutions of Ethyl Celluloses with Different Molecular Weight in *m*-Cresol
S. Suto, M. Ohshiro, W. Nishibori, H. Tomita, and M. Karasawa 407

Effect of Graft Copolymerization of 2-Hydroxyethyl Methacrylate on the Properties of Polyester Fibers and Fabric
E. M. Abdel-Bary, A. A. Sarhan, and H. H. Abdel-Razik 439

Infrared Spectral Study on the Heat Curing Reaction of Glycerin-Terminated Urethane Prepolymers
C.-P. Yang and L.-T. Lee 449

Preparation of Photoresist Polymer by a Photoreactive Monomer Containing *N,N*-Diethyldithiocarbamate Group
K. Yamashita, A. Nakano, and K. Tsuda 465

Electrical Conduction of Cu_xS-Treated Films
S. S. Im and E. Y. Kang 475

On the Structure of Glassy Polymers. VIII. Use of *Z* Contrast to Elucidate the Microstructure of Epoxy and Polyimid Resins
G. V. Di Filippo, J. B. V. Sande, and D. R. Uhlmann 485

Thermovulcanization of Polychloroprene Rubber and Its Blends with Poly(vinyl Chloride)
M. Běhal and V. Ducháček 507

Gas Transport in Poly(vinyl Cyclohexanecarboxylate)
T. Hirose, K. Mizoguchi, and Y. Kamiya 517

Flame-Retardation Studies of Poly(ethylene Terephthalate) Fabrics Treated with *tris* Dibromo Alkyl Phosphates
M. Day, T. Suprunchuk, J. G. Omichinski, and S. D. Nelson 529

Direct Pyrolysis Mass Spectrometry of Chlorine-Containing Polymers Using Capillary GC/MS
J. M. McGuire and C. C. Bryden 537

A Generalized Criterion for Rubber Toughening: The Critical Matrix Ligament Thickness
S. Wu 549

Issue No. 3, February 20th, 1988

Packing Density of the Amine-Crosslinked Stoichiometric Epoxy Networks
V. Bellenger, W. Dhaoui, E. Morel, J. Verdu 563

Composite Materials of Radiation-Treated Coconut Fiber and Thermoplastics
O. Owolabi and T. Czvikovszky 573

Influence of Agitation on the Creation of Coagulum during the Emulsion Polymerization of the System Styrene-Butylacrylate-Acrylic Acid
A. Matějíček, A. Pivoňková, J. Kaška, P. Ditl, and L. Formánek 583

Properties of Syndiotactic-Rich Poly(vinyl Alcohol) Thin Film in Water. V. Effect of Initial Temperature of Heating on Elongation
K. Yamaura, T. Masuzawa, T. Tanigami, and S. Matsuzawa 593

Morphology of Water-Blown Flexible Polyurethane Foams
J. P. Armistead, G. L. Wilkes, and R. B. Turner 601

Thermal Stabilization of Polyacrylonitrile Fibers
T.-H. Ko. H.-Y. Ting, and C.-H. Lin 631

Measuring and Modelling the Transition Layer During the Dissolution of Glassy Polymer Films
P. D. Krasicky, R. J. Groele, and F. Rodriguez 641

Deformation Behavior of HDPE/(PEC/PS)/SEBS Blends
M. C. Schwarz, H. Keskkula, J. W. Barlow, and D. R. Paul 653

Analysis of Temperature-Dependent AC Dielectric Loss Data
G. Bánhegyi, P. Hedvig, and F. E. Karasz 679

Preparation of Quinazolone-Imide Copolymers and Their Thermal and Chemical Etching Properties
S. Kubota and T. Ando 695

Polymer Compatibility and Interpolymer Association in the Poly(acrylic Acid)-Polyacrylamide-Water Ternary System
D. J. Eustace, D. B. Siano, and E. N. Drake 707

Viscoelastic Properties of (Cellulose Oligo-Oxymethylene Ether) Acylates with Bulky Side Chain
T. Morooka, M. Norimoto, T. Yamada, S. Takuma, and K. Okamura 717

Effect of Methylene Chloride Sorption on the Mechanical Properties of Poly(aryl-ether-ether-ketone) (PEEK)
P. S. Pao, M. A. Grayson, and C. J. Wolf 727

Copolymerization of N-Vinyl-2-pyrrolidone and 2-Phenyl-1,1-dicyanoethene
G. B. Kharas 733

Separate or Simultaneous Immobilization of Glucose Oxidase and Peroxidase on Latex Particles and Their Function
H. Kawaguchi, N. Koiwai, and Y. Ohtsuka 743

Polyanhydride Microspheres as Drug Carriers. II. Microencapsulation by Solvent Removal
E. Mathiowitz, W. M. Saltzman, A. Domb, and R. Langer 755

Polyester Polyols for Polyurethanes from PET Waste: Kinetics of Polycondensation
U. R. Vaidya and V. M. Nadkarni 775

Molecular Orientation and Young's Modulus of Plasticized and Nonplasticized Poly(vinyl Chloride)
J. King, D. I. Bower, and W. F. Maddams 787

The Mechanical Properties of Rubber-Modified Vinyl Esters
F.-H. Liao, N.-J. Chu, and S.-N. Tong 797

Polypropylene Composities. I. Studies of the Effect of Grafting of Acrylic Acid and Silane Coupling Agent on the Performance of Polypropylene Mica Composites
W.-Y. Chiang and W.-D. Yang 807

^{13}C-NMR Characterization of Poly(1,5-hexadiene)
H. N. Cheng and N. P. Khasat 825

Synthesis, Physical and Thermal Characterization of Phosphorous-Containing Homopolymers and Copolymers Based on 2,4-Bis(4-Aminophenoxy)-6-Diethoxyphosphinyl-s-Triazine
A. P. Melissaris and J. A. Mikroyannidis 831

Issue No. 4, March 1988

Die Swell from Capillary Die and Slit Die: A Theoretical Study
W.-Y. Chiu and G.-D. Shyu 847

The Microstructure of Stabilized Fibers
T.-H. Ko, H.-Y. Ting, C.-H. Lin, and J.-C. Chen 863

Preparation of Ion Exchange Membranes by Plasma Polymerization. I
J. Sakata and M. Wada 875

Preparation of Aldehydocelluloses from Completely Allylated Methylcellulose, Allylated Ethylcellulose, and Tri-*O*-Allylcellulose by Ozonization
T. Kondo, A. Ishizu, and J. Nakano 885

Surface Tension of Polytrifluoropropylmethylsiloxane
M. J. Owen 895

The Preparation and Properties of Zinc Coordination Complexes of Poly(4-Vinylpyridine-co-*n*-Butyl Methacrylate) Copolymers
M. S. Jacovic, I. Perovic, W. J. MacKnight, and R. W. Lenz 903

Highly Sensitive Self-Developing Soft X-Ray Resists of Silicon-Containing Aldehyde Copolymers and Sensitive Novolac-Based Composite Resists Containing Aldehyde Copolymer
K. Nate, T. Inoue, H. Yokono, and K. Hatada 913

Effects of Thermodynamic Models on the Predictions of Free Volume Diffusion Theory for Concentrated Polymer Solutions
L. S. Mossner and E. A. Grulke 923

ESR Study and Copolymer Analysis of Acrylamide-Methacrylamide Solid Solutions
U. Ramelow and B. M. Baysal 937

Dynamics of the Threadline in Melt Spinning
W. K. Martin 953

Studies on Some Physical Properties and Structural Characteristics of Methyl Methacrylate-Grafted Silk Fiber
M. Tsukada 965

Studies on Process Variables for Natural Fiber Composites—Effect of Polyesteramide Polyol as Interfacial Agent
S. K. Pal, D. Mukhopadhyay, S. K. Sanyal, and R. N. Mukherjea 973

Studies on the Reaction of Bis(diisopropyl) Thiophosphoryl Disulfide with Silica in the Vulcanization of NR
S. K. Mandal, R. N. Datta, P. K. Das, and D. K. Basu 987

Stress Relaxation and the Domain Structure of Thermoplastic Elastomer
G.-H. Hsiue, D.-J. Chen, and Y.-K. Liew 995

Studies on the Cure Characteristics and Vulcanizate Properties of 50/50 NR/SBR Blend
R. Joseph, K. E. George, and D. J. Francis 1003

Reactive Extrusion of Polypropylene I: Controlled Degradation
D. Suwanda, R. Lew, and S. T. Balke 1019

Reactive Extrusion of Polypropylene II: Degradation Kinetic Modeling
D. Suwanda, R. Lew, and S. T. Balke 1033

Quantitative Size Exclusion Chromatography of Polypropylene I: Method Development
R. Lew, D. Suwanda, and S. T. Balke 1049

Quantitative Size Exclusion Chromatography of Polypropylene II: Analysis Systems
R. Lew, P. Cheung, D. Suwanda, and S. T. Balke 1065

Quantitative Branching of Linear and Branched Polysaccharide Mixtures by Size Exclusion Chromatography and On-Line Low-Angle Laser Light Scattering Detection
L.-P. Yu and J. E. Rollings 1085

Solution Properties of Poly(thiocarbonates)
L. Gargallo, E. Soto, L. H. Tagle, and D. Radić 1103

The Effect of Thermal Aging on Xanthan Solutions
M. Milas, J. L. Linossier, and F. Contat 1115

NOTE

Dielectric Properties of Butyl Rubber Mixtures at 10^6–10^{10} Hz
I. K. Hakim, A. M. Bishai, and A. L. Saad 1123

ERRATUM

Photopolymerization of Multifunctional Monomers in Condensed Phase
C. Decker and K. Moussa 1127

Issue No. 5, April 1988

Modeling Reverse Osmosis Separations with Strong Solute-Membrane Affinity at Different Temperatures Using the Finely Porous Model
P. J. Connell and J. M. Dickson 1129

Structural Determination of Pyrolyzed PI-2525 Polyimide Thin Films
C. Z. Hu, J. D. Andrade, and P. Dryden 1149

Investigation on the Long-Term Behavior of Polyethylene and Poly(vinyl chloride) Under Static Load
M. Natov, St. Vassileva, and S. Evtimova 1161

Grafting of Acrylamide onto Guar Gum Using $KMnO_4$/Oxalic Acid Redox System
U. D. N. Bajpai and S. Rai 1169

Rhodium (1) Catalyst Supported on Polyethylene Hollow Fibers: Preparation and Hydrogenation Studies
J. S. Bulter, B. Gordon III, and I. R. Harrison 1183

Pervaporation Separation of Acetic Acid-Water Mixtures Using Modified Membranes. I. Blended Polyacrylic Acid (PAA)-Nylon 6 Membranes
R. Y. M. Huang, A. Moreira, R. Notarfonzo, and Y. F. Xu 1191

Thermal Properties of Liquid Crystalline Aromatic Random Copolyesters Containing Two Different Mesogenic Modifications within a Polymer Backbone
Y. D. Yoo and S. C. Kim 1201

Charring Processes in Thermoplastic Polymers: Effect of Condensed Phase Oxidation on the Formation of Chras in Pure Polymers
B. Martel 1213

Production of Hydroxyl-Terminated Liquid Natural Rubber—Mechanism of Photochemical Depolymerization and Hydroxylation
T. Ravindran, M. R. Gopinathan Nayar, and D. J. Francis 1227

Chemically Induced Graft Copolymerization of Acrylic Acid onto Polyester Fabrics. I. Kinetic Investigation of Grafting
M. Okoniewski, J. Sójka-Ledakowicz, and S. Ledakowicz 1241

Liquid Diffusion into Epoxy Resin Composites
T. M. Aminabhavi 1251

Laser Marking of Microporous Films
J. E. Kuder, H. T. Taskier, and E. G. Hamer 1257

New Model for the High Modulus and Strength Performance of Ultradrawn Polyethylenes
A. E. Zachariades and T. Kanamoto 1265

Continuous Preparative Method of Relatively Large and Uniform Polymer Beads and Their Application to Immobilization of Urease
N. Ogawa, Y. Kawauchi, K. Nishimura, and A. Sugii 1283

The Three Stages in Degradation of Polymers—Polyethylene as a Model Substance
A.-C. Albertsson and S. Karlsson 1289

Modeling of Diffusion-Controlled Free-Radical Polymerization Reactions
D. Achilias and C. Kiparissides 1303

Moisture Sorption of Polyelectrolyte Complex between Poly(acrylic acid) and Poly(4-vinylpyridine)
Y. Hirai and T. Nakajima 1325

O_2 and N_2 Gas Permselectivity of Alternating Copoly(vinylidene cyanid–vinyl Acetate)
H. Hachisuka, H. Kito, Y. Tsujita, A. Takizawa, and T. Kinoshita 1333

Synthesis and Properties of Bismaleimide Resins Containing Ether Bonds
S. Takeda, H. Akiyama, and H. Kakiuchi 1341

Toughening Bismaleimide Resins by Reactive Liquid Rubbers
S. Takeda and H. Kakiuchi 1351

The Effect of Steric Hindrance on Physical Properties in an Amine-Cured Epoxy
J. V. Duffey and G. F. Lee 1367

Electrophoretic, Dynamic, and Static Light Scattering on Charged Polymer Emulsions
F.-M. C. Lin, G. C. Berry, and R. L. Frye 1377

Cure Studies of Interpenetrating Networks by Microdielectrometry
B. S. Holmes and C. A. Trask 1399

Issue No. 6, May 5th, 1988

An Investigation of the Emulsion Terpolymerization of 2-Ethylhexylacrylate-Vinyl Acetate-Acrylic Acid
B. P. Huo, A. E. Hamielec, and J. F. MacGregor 1409

Condensation Polymerization of Multifunctional Monomers and Properties of Related Polyester Resins. I. Polyester Varnishes
Wen-Yen Chiang and Wen-Chang Chiang 1421

Condensation Polymerization of Multifunctional Monomers and Properties of Related Polyester Resins. II. Thermal Properties of Polyester-Imide Varnishes
Wen-Yen Chiang and Wen-Chang Chiang 1433

Thermal Decomposition of Potassium Persulfate in Aqueous Solution at 50°C in an Inert Atmosphere of Nitrogen in the Presence of Acrylonitrile Monomer
Swati Sarkar, Mukti Sadhan Adhikari, Monoranjan Banerjee, and Ranajit Singha Konar 1441

AC Breakdown of Melt-Crystallized Isotactic Polypropylene
B. Krishnakumar, R. K. Gupta, E. O. Forster, and J. R. Laghari 1459

Factors Affecting Photografting of Methacrylic Acid on Polyethylene Film in Liquid Phase System
Yoshitaka Ogiwara, Noriyuki Koike, Hitoshi Kubota, and Yasuo Hata 1473

On the Packing-Holding Flow in the Injection Molding of Thermoplastic Polymers
G. Titomanlio, S. Piccarolo, and G. Levati 1483

Sorption and Diffusion of Carbon Dioxide in Polyimide Films
E. Sada, H. Kumazawa, and P. Xu 1497

Water Absorption and Its Effect on Polyarylate
A. Golovoy and M. F. Cheung 1511

Preparation, Characterization, and Catalytic Activity of Polymer Supported Ethylenediamine and Glycine Cobalt Complexes
D. T. Gokak, B. V. Kamath, and R. N. Ram 1523

Synthetic Resins. VI. Studies on Reactivity Ratios, Thermal Behavior, and Bacteriocidal Properties of Resins Prepared from Substituted Acetophenones
Santosini Patra, Anil Prasad Das, Subasini Lenka, and Padma L. Nayak 1537

Kinetics of Bulk Styrene Polymerization Catalyzed by Symmetrical Bifunctional Initiators
K. Y. Choi, W. R. Liang, and G. D. Lei 1547

Mechanical Behavior of Dual-Rubber-Modified SAN
M. E. Fowler, H. Keskkula, and D. R. Paul 1563

The Structure of Urea-Formaldehyde Resins
Sivananda S. Jada 1573

An Application of Polyalcohols Prepared from Diols. I. Elastic Polymers with Functional Groups Prepared by Chemical Modifications
Taketoshi Kito, Koki Ota, Makoto Yamaye, and Kohji Yoshinaga 1593

One-Point Method to Calculate Molecular Weight from Low-Angle Laser Light Scattering Data. I. Application to Acrylamide Polymers
D. Hunkeler and A. E. Hamielec 1603

Properties of Syndiotactic-Rich Poly(vinyl Alcohol) Thin Films in Water. VI. Elastic Behavior of Undrawn/Annealed Thin Films by Repeated Elongation/Contraction in Water
Kazuo Yamaura, Akihiro Hayakawa, Tetsuya Tanigami, and Shuji Matsuzawa 1621

Weighted Intrinsic Viscosity Relationships for Polysaccharide Mixtures in Dilute Aqueous Solutions
L. Weaver, L. P. Yu, and J. E. Rollings 1631

^{13}C-NMR Sequence Determination for Multicomponent Polymer Mixtures
H. N. Cheng 1639

Effect of White Pigments on UV Curing of Inks
Yasufumi Otsubo, Takeshi Amari, and Koichiro Watanabe 1651

Properties of Blends of Syndiotactic-Rich and Atactic Poly(vinyl Alcohols)
Shuji Matsuzawa, Kazuo Yamaura, Masanobu Nagura, and Toyohiko Fukuta 1661

Construction and Testing of a Specific Viscosity Detector for Size Exclusion Chromatography
T. A. Chamberlin and H. E. Tuinstra 1667

Infrared Microspectrometric Study of the Thermal History of Fusion Welding of Polyethylene
D. Gueugnaut, P. Wackernie, and J. P. Forgerit 1683

NOTE

Chelating Polymer-Bearing 4-(3-Triazolylazo)phenol Moiety as the Functional Group
Y. Onari 1695

ERRATUM

Permeation and Separation of Aqueous Alcohol Solutions through Grafted Poly(vinyl Alcohol) Latex Membranes
Ging-Ho Hsiue, Yung-Song Yang, and Jen-Feng Kuo 1701

Issue No. 7, May 20th, 1988

Postcrosslinking of Linear Polyesters. I. Melt-Blend-Type UV-Induced Crosslinking Agents
Hiroo Inata, Tsutou Morinaga, and Shunichi Matsumura 1705

Low-pressure CO_2 Sorption in Poly(vinyl Benzoate) Conditioned to High-pressure CO_2
Takuji Hirose, Keishin Mizoguchi, Yasutoshi Naito, and Yoshinori Kamiya 1715

Processing-Structure-Property Relationships in Poly(ethylene Terephthalate) Blown Film
Tung Chan Ma and Chang Dae Han 1725

Photovoltaic Effect Based on Wet Poly(vinyl Alcohol)/Merocyanine Dye Junction
Kaku Uehara, Kenji Takagishi, and Makoto Tanaka 1759

Surface Tension Considerations for Membrane Casting Systems
K. Darcovich and O. Kutowy 1769

Linear Polyesters Products of Interfacial Polycondensation of *Bis*/4-Hydroxyphenyl/Ether with Some Aliphatic Acid Dichlorides
Wawrzyniec Podkoscielny and Danuta Wdowicka 1779

Low-Density Polyethylene Depth Profile Analysis by Photoacoustic Spectroscopy
Marcelo Ganzarolli de Oliveira, Osvaldo Pessoa Jr., Helion Vargas, and Fernando Galembeck 1791

Thermal Behavior of Cast Polyurethane Elastomers
M. V. Pandya, D. D. Deshpande, and D. G. Hundiwale 1803

Synthesis of Sulfone-Modified Poly(vinyl Alcohol) and its Application for Permselective Membrane of Sulfur Dioxide
Kiyokazu Imai, Tomoo Shiomi, Yasuyuki Tezuka, and Matsunori Takada 1817

Thermal and Dynamic Mechanical Properties of Polyurethaneureas
Bruce Hartmann, James V. Duffy, Gilbert F. Lee, and Edward Balizer 1829

Linear Polythioesters. XIV. Products of Interfacial Polycondensation Isomeric Di(mercaptomethyl) trimethylbenzenes with Some Aliphatic Acid Dichlorides
Wawrzyniec Podkoscielny and Stanislawa Szubinska 1853

The Oxygen Index Method in Fire Retardance Studies of Polymeric Materials
G. Camino, L. Costa, E. Casorati, G. Bertelli, and R. Locatelli 1863

Miscible Blends of Poly(aryl Ether Ketone)s and Polyetherimides
J. E. Harris and L. M. Robeson 1877

Grafting of Vinyl Acetate onto Poly(vinyl Chloride) in Solution
Fernando Vigo and Claudio Uliana 1893

Decrease in the Etch Rate of Polymers in the Oxygen Afterglow with Increasing Gas Flow Rate
N. R. Lerner and T. Wydeven 1903

ESCA Analysis of Partially Converted Lignocellulosic Materials
A. Ahmed, A. Adnot, and S. Kaliaguine 1909

Degradation of Polyester Waste by Aliphatic and Aromatic Alcohols
K. A. Joshi, G. A. Naik, and N. B. Nevrekar 1921

Synthesis and Properties of Elastomeric Ionenes. I. Polybutadiene Ionenes
Shinzo Yamashita, Masaaki Itoi, Shinzo Kohjiya, and Akinori Kidera 1927

Characterization of Nonderivatized Cellulose by Gel Permeation Chromatography
Wolfgang Schwald and Ortwin Bobleter 1937

Melt Transcrystallization of Polyethylene on High Modulus Polyethylene Fibers
Tianbai He and Roger S. Porter 1945

Microstructural Investigations of PBT/Nylon 6,6 Composites
O. A. Nehme, C. A. Gabriel, R. J. Farris, E. L. Thomas, and M. F. Malone 1955

Modeling of Asymmetric Membrane Formation. II. The Effects of Surface Boundary Conditions
L. Yilmaz and A. J. McHugh 1967

NOTE

Setting and Torsional Recovery of Nylon Monofilament and its Relation to Structure
V. Subramaniam, P. Muthukrishnan, and Deepak Naik 1981

Issue No. 8, June 5th, 1988

The Fibrillar Structure of Cellulosic Man-Made Fibers Spun from Different Solvent Systems
J. Lenz, J. Schurz, and E. Wrentschur 1987

The Kinetics of Polyarylate Hydrolytic Embrittlement
A. Golovoy, M. F. Cheung, and M. Zinbo 2001

Effect of Impurities on Emulsion Polymerization: Case II Kinetics
B. P. Huo, J. D. Campbell, J. F. MacGregor, A. E. Hamielec, and A. Penlidis 2009

Effect of Impurities on Emulsion Polymerization: Case I Kinetics
A. Penlidis, J. F. MacGregor, and A. E. Hamielec 2023

Block Copolymers Derived from Azobiscyanopentanoic Acid. XI. Properties of Silicone-PMMA Block Copolymers Prepared via Polysiloxane (azobiscyanopentanamide)s
H. Inoue, A. Ueda, and S. Nagai 2039

Mechanical Properties of HDPE/(PEC/PS)/SEBS Blends
M. C. Schwarz, J. W. Barlow, and D. R. Paul 2053

Solid State C-13 NMR Characterization of Textiles: Qualitative and Quantitative Analysis
R. F. Colletti and L. J. Mathias 2069

Surface Composition of Polystyrene
R. D. Goldblatt, G. J. Scilla, J. M. Park, J. F. Johnson, and S. J. Huang 2075

Crystallization of Cellulose
K. M. Paralikar and S. Aravindanath 2085

Low Temperature Exotherm in Starch/Water Systems: A Retrogradation Marker
Y. T. Kwak and W. T. Winter 2091

Solvent Penetration and Photoresist Dissolution: A Fluorescence Quenching and Interferometry Study
W. Limm, D. Stanton, G. P. Dimnik, M. A. Winnik, and B. A. Smith 2099

Sulfonated Latex Particle as Acid Catalysts for the Continuous Inversion of Sucrose
J. H. Kim, M. S. El-Aasser, A. Klein, and J. W. Vanderhoff 2117

Structural Characteristics of 2-Hydroxyethylmethacrylate (HEMA)/Methacrylamide (MAA)-Grafted Silk Fibers
M. Tsukada 2133

Improved Dispersive Mixing through Reduction in Flow Field Vorticity
C. M. Roland and M. Nguyen 2141

Bonding of Untreated Cellulose Fibers to Natural Rubber
P. Flink, B. Westerlind, M. Rigdahl, and B. Stenberg 2155

Processing of Ultrahigh Molecular Weight Polyethylene
X.-Y. Wang, S.-Y. Li, and R. Salovey 2165

Characterization of Copolymers of *N*-Vinyl-2-Pyrrolidone with 2-Phenyl-1,1-Dicyanoethene
G. B. Kharas 2173

Modification of Polyimide Coatings by High Energy Ion Bombardment
M. P. Zussman, S. Wood, L. C. Scala, J. Bartko, and A. Vincenz 2183

Polymerization of Methyl Methacrylate in Micellar Phase: A Kinetic Study
R. B. Panda, N. Patel, and B. K. Sinha 2193

Grafting of Methyl Methacrylate onto Guar Gum By Hydrogen Peroxide Initiation
D. K. Raval, R. G. Patel, and V. S. Patel 2201

Rheological Properties and Crystalline Structure of the Dynamically Cured EPDM and PP/HDPE Ternary Blends
C. S. Ha and S. C. Kim 2211

On-Line Studies and Computer Simulation of the Melt Spinning of Nylon-66 Filaments
K. F. Zieminski and J. E. Spruiell 2223

Effect of Pressure on the Precipitation and Sol-Phase Aqueous Polymerization of Methyl Methacrylate
B. Mohanty, S. K. Palit, and M. Biswas 2247

Memory Effects in Polymers. I. Orientational Memory in the Molten State; Its Relationship to Polymer Structure and Influence on Recrystallization Rate and Morphology
Y. P. Khanna and A. C. Reimschuessel 2259

Volume 36

Issue No. 1, June 20th, 1988

Water-Soluble Sulfonated Melamine–Oxytriazine Resins: Synthesis and Properties as Dispersants
M. Absi-Halabi and S. M. Lahalih 1

Oxygen Permeability and Surface Free Energy Properties of Silicone-Containing Copolymers of Methyl Methacrylate
H. Yildirim Erbil 11

Pretreatment of Eucalyptus Wood with Sodium Hypochlorite and Enzymatic Hydrolysis by Cellulases of *Trichoderma viride*
C. David, R. Fornasier, W. Lejong, and N. Vanlautem 29

Adsorption of Dyes onto Bagasse Pith Using a Solid Diffusion Model
G. McKay, M. S. El Geundi, and I. S. Mansour 43

Radiation Grafting of α,β,β-Trifluoroethylenesulfonyl Fluoride onto Low-Density Polyethylene Film by Simultaneous Irradiation Method. I. Kinetic Study of Simultaneous-Irradiation Grafting
T. Momose, I. Ishigaki, and J. Okamoto 55

Radiation Grafting of α,β,β-Trifluoroethylenesulfonyl Fluoride onto Low-Density Polyethylene Film by Simultaneous Irradiation Method. II. Properties of the Grafted Membrane
T. Momose, I. Ishigaki, and J. Okamoto 63

Molecule Structure Variations in Friction of Stainless Steel/PTFE and Its Composite
G. Jintang and D. Hongxin 73

Chemical Initiated-Grafted Nylon 4 Membranes
A. Jong, T.-C. Chang, and J.Y. Lai 87

Ozonolysis of Epoxidized Natural Rubber
M. C. S. Perera, J. A. Elix, and J. H. Bradbury 105

Particulate Rubber Modified Nylon 6 RIM
K. Udipi 117

Polymerization of Vinyl Chloride at Reduced Monomer Accessibility. IV. The Effect of Diffusion Control on Polymerization Rate, Molecular Weight, and Thermal Stability
T. Hjertberg 129

Binders for Higher-Solids Coatings. IV. Liquid–Crystalline Acrylic Lacquers
D. S. Chen and F. N. Jones 141

Studies in the Properties of Nylon 6–Glass Fiber Composites
J. U. Otaigbe and W. G. Harland 165

Water–Ethanol Permseparation by Pervaporation through the Plasma Graft Copolymeric Membranes of Acrylic Acid and Acrylamide
T. Hirotsu and S. Nakajima 177

Synthesis and Applications of Reactive Carbohydrates. IV. Reactive Finishes Based on CMC and Oxidized CMC Copolymers
A. Hebeish, S. A. Abdel-Hafiz, and F. El-Sisi 191

Study of the Change of Crystallinity of Polyethylene on Oxidation by Inverse Phase Gas Chromatography
A. K. Sen and Ramesh Kumar 205

Grafting of Gelatin during Polymerization of Methyl Methacrylate in Aqueous Media
J. Stejskal, D. Straková, and P. Kratochvíl 215

Stereochemistry of Vinyl Polymers and NMR Characterization
H. N. Cheng 229

NOTE

Catalytic Activity of Benzimidazole in the Imidization of Polyamic Acids
A. Nelson, G. Guerra, D. J. Williams, F. E. Karasz, and W. J. MacKnight 243

Issue No. 2, July 5th, 1988

Development of an Elastomer with a High Static or Breakaway Friction Coefficient
J. F. Meier, J. T. Siemon, and J. F. Quirk 251

Dyeing of Silk Cloth with Colloidal Gold
Y. Nakao and K. Kaeriyama 269

The Use of Infrared Spectroscopy for Determination of Polypropylene Stereoregularity
D. R. Burfield and P. S. T. Loi 279

Radiation-Induced Polymerization of Methyl Methacrylate and Alkyl Acrylates at High Dose Rate
K. Hayashi, J. Takezaki, T. Okada, and I. Sakurada 295

A Qualitative Model for the Mechanical Behavior of Pretreated Asbestos-Epoxy Composites
C. D. Papaspyrides and G. C. Papanicolaou 309

Polymerization and Crystallization Behavior of a LaRC-TPI Powder
T. H. Hou, J. M. Bai, and T. L. St. Clair 321

Thermal and Crystallization Behavior of Engineering Polyblends. I. Glass Reinforced Polyphenylene Sulfide with Polyethylene Terephthalate
V. L. Shingankuli, J. P. Jog, and V. M. Nadkarni 335

A Constitutive Equation for Creep in Polymer Concretes and Their Resin Binders
N. Dharmarajan, S. Kumar, and C. D. Armeniades 353

Polyamide–Polyurethane Interpenetrating Polymer Networks Prepared by Synthesis in the Melt
S. Decurtins and D. J. Hourston 365

Studies of Temperature and Atmosphere Composition Influence on Thermal Degradation Products of Polyurethane Foam
D. Włodarczak 377

Study on the Effect of Dibenzylidene Sorbitol as a Nucleating Agent on the Crystallization and Morphology of Poly(ethylene Terephthalate)
D. Mitra and A. Misra 387

A Method for Calculating Dynamic Mechanical Properties Using Fourier Transforms of Pulse Deformation Points
M. S. Vratsanos and R. J. Farris 403

Chemical Modification of Poly(2,6-Dimethyl-1,4-Phenylene Oxide) via Phase Transfer Catalysis
S. Percec 415

Polymer Thin Film Integrated Optics: Fabrication and Characterization of Polystyrene Waveguides
J. T. Ives and W. M. Reichert 429

NOTE

On Crystallization of Comblike Polymethacrylates
I. D. Rubin 445

Issue No. 3, July 20th, 1988

Moisture-Induced Plasticization of Amorphous Polyamides and Their Blends
T. S. Ellis 451

Toughened Mica-Filled Polypropylene Systems
Douglas L. Faulkner 467

Molecular Weight Distribution Control in a Semibatch Living-Anionic Polymerization. II. Experimental Study
L. M. Alassia, D. A. Couso, and G. R. Meira 481

The Effect of Composition on the Properties of Nylon 612 Copolymers
David P. Garner and Paula D. Fasulo 495

Stress Relaxation Studies of Model Silicone RTV Networks
Judith Stein and Lori C. Prutzman 511

Surface Energy of Untreated and Surface-Modified Cellulose Fibers
Bo S. Westerlind and John C. Berg 523

Water Sorption, Membrane Potentials, and Ion Permeability of Styrene-Grafted *Bombyx mori* Silk Fibroin Membrane
Makoto Demura, Aio Kitamura, Akio Shibamoto, and Tetsuo Asakura 535

Modified Wheat Flour-Natural Rubber Blends. II
Arun K. Hota and Mrinal M. Maiti 545

Polyethers. I. Polyethers from 2,4-Dichloroquinolines and Alkylene Diols
M. G. Patel, K. C. Patel, and S. R. Patel 561

Viscosity and Molecular Weight Distribution of Ultrahigh Molecular Weight Polyethylene Using a High Temperature Low Shear Rate Rotational Viscometer
H. L. Wagner and J. G. Dillon 567

Modeling High-Pressure Gas-Polymer Mixtures Using the Sanchez-Lacombe Equation of State
M. B. Kiszka, M. A. Meilchen, and M. A. McHugh 583

Macromolecular Complexes Consisting of Poly(aluminum Chloride), [2-(Diethylamino)ethyl]dextran Hydrochloride, and Potassium Poly(vinyl Sulfate)
Yasuo Kikuchi and Naoji Kubota 599

Viscoelastic Properties and Coating Performance of Acrylic Copolymers Crosslinked with Melamine Resin
Seiichi Takahashi, Noboru Okoshi, Takanori Matsumoto, and Takenori Ikeda 613

Behavior of Azo Dyes Dispersed in Fluid Polymeric Matrices with Different Rheological Properties. A Kinetic Study of the *cis-trans* Isomerization of 3'-Nitro-Diethylamino Azobenzene in Polyethylenoxides
Ernestina Dubini-Paglia, Pier Luigi Beltrame, and Bruno Marcandalli 635

Modification of Natural Rubber Tubes for Biomaterials. I. Radiation-Induced Grafting of *N,N*-Dimethyl Acrylamide onto Natural Rubber Tubes
Mirzan T. Razzak, Kasushige Otsuhata, Yoneho Tabata, F. Ohashi, and A. Takeuchi 645

Modeling of Butadiene Polymerization Using Cobalt Octoate/DEAC/Water Catalyst
J. M. Vela Estrada, C. C. Hsu, and D. W. Bacon 655

Mechanical Properties of Polypivalolactone: Effects of Thermal History and Solvent Exposure
Charles W. Paul 675

High Temperature Laminating Resins Based on Maleimido End-Capped Pyromellitimide
John A. Mikroyannidis and Anastasios P. Melissaris 691

Sample Overloading Effects in Polymer Characterization by Field-Flow Fractionation
Karin D. Caldwell, Steven L. Brimhall, Yashu Gao, and J. Calvin Giddings 703

Thermogravimetric/Mass Spectrometric Characterization of the Thermal Decomposition of (4-O-Methyl-D-Glucurono)-D-Xylan
Ivan Simkovic, Gabor Varhegyi, Michael J. Antal, Jr., Anna Ebringerova, Tamas Szekely, and Piroska Szabo 721

Forthcoming Articles 729

Issue No. 4, August 5th, 1988

Solute Diffusion in Frozen Membranes. IX. Scaling Laws for Solute Diffusion in Gels
S. R. Lustig and N. A. Peppas 735

Thermal and Dynamic Mechanical Properties in Hydroxypropyl Cellulose Films
T. G. Rials and W. G. Glasser 749

Engineering Plastics from Lignin. XV. Polyurethane Films from Chain-Extended Hydroxypropyl Lignin
S. S. Kelley, W. G. Glasser, and T. C. Ward 759

Heat Distortion of Phenolic Fiber Reinforced Thermoplastics
E. Jinen 773

Micromechanical Properties of Polyether Block Amide Copolymers
N. Alberola 787

Thermotropic Polyester Carbonates. II. Polyester Carbonates as High Performance Fibers
Y. C. Lai, B. T. Debona, and D. C. Prevorsek 805

Thermotropic Polyester Carbonates. III. Thermotropic Polyester Carbonates as Self-Reinforced Plastics
Y. C. Lai, B. T. Debona, and D. C. Prevorsek 819

Morphology of Composite Film Prepared by Polymerizing Styrene in Poly(vinyl Chloride) Film
Y. Mizutani, T. Nishimura, and M. Nishimura 829

Drag Reduction in Polymer–Polymer Mixtures
J. Malhotra, P. N. Chaturvedi, and R. P. Singh 837

Processing–Property Interactions in Poly(vinylidene Fluoride). I. An Analysis of Melt Stress History in Extensional Flow Geometry
B. Khomami and A. J. McHugh 859

Processing–Property Interactions in Poly(vinylidene Fluoride). II. Morphology and Property Characterization of Extruded Films
B. Khomami and A. J. McHugh 877

Effect of Inorganic Salt on Adsorption of Sodium Alkyl Sulfates and Fatty Acid Sodium Salts from Aqueous Solution onto Ion Exchange Resins
Y. Ihara 891

Hot Nip Drawing: A Rapid Method of Producing High Modulus Polypropylene Films
M. P. Laughner and I. R. Harrison 899

Polymerization in Gel-Like Emulsions
E. Ruckenstein and K.-J. Kim 907

Charged Ultrafiltration Membrane for Permeation of Proteins
H. Miyama, K. Tanaka, Y. Nosaka, N. Fujii, H. Tanzawa, and S. Nagaoka 925

Analysis of Water-Soluble Polymers Using Hydrodynamic Chromatography
D. A. Hoagland and R. K. Prud'homme 935

Operation of Polymer Chains in Films of Syndiotactic-Rich Poly(vinyl Alcohol)
K. Yamaura, K. Takeyama, T. Tanigami, and S. Matsuzawa 957

Effects of Brominated Flame Retardants and Crosslinking Agents on the Flame Retardancy of Rubbers
C.-P. Yang and W.-T. Chen 963

NOTE

Radiation-Induced Sol–Gel Transition of Protein: Effects of Radiation on Amino Acid Composition and Viscosity
M. Nisizawa 979

Issue No. 5, August 20th, 1988

Study on Rough-Surface Biaxially Oriented Polypropylene Film. I. Formation of β-Form Crystals in Sheet Cast with T-Die Extruder
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 985

Study on Rough-Surface Biaxially Oriented Polypropylene Film. II. Influence of Stretching Conditions
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 995

Study on Rough-Surface Biaxially Oriented Polypropylene Film. III. Influence of MFI of Base Resin
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 1011

Study on Rough-Surface Biaxially Oriented Polypropylene Film. IV. Influence of Addition of Crystal Nucleator
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 1025

Study on Rough-Surface Biaxially Oriented Polypropylene Film. V. Analysis and Control of Roughness
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 1035

Study on Rough-Surface Biaxially Oriented Polypropylene Film. VI. Roughening by Laminated Cast Sheet
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 1049

Study on Rough-Surface Biaxially Oriented Polypropylene Film. VII. Roughening by Blending Low Melting Point Polymers
M. Fujiyama, Y. Kawamura, T. Wakino, and T. Okamoto 1061

The Role of Hindered Piperidine (HALS) Compounds for the Stabilization of Polypropylene against Oxidation Reactions Caused by Ozone and Oxidative Products Formed during Photolysis of Ozone
J. Lucki, J. F. Rabek, B. Rånby, and Y. Watanabe 1067

Graft Polymerization of Acrylamide onto UV-Irradiated Films
Y. Uyama and Y. Ikada 1087

Thermal Degradation of Poly(aryl-Ether—Ether-Ketone) (PEEK): A Differential Scanning Calorimetry Study
M. Day, T. Suprunchuk, J. D. Cooney, and D. M. Wiles 1097

Characterization of Water-Soluble Cellulose Derivatives Produced by Alkali Treatment of Ozonized Allylated Celluloses
T. Kondo, A. Ishizu, and J. Nakano 1107

A Novel Method for Crosslinking Polyetheretherketone
S. A. Thompson and R. J. Farris 1113

Pervaporation Separation of Ethanol-Water Mixtures Using Ionically Crosslinked Blended Polyacrylic Acid (PAA)-Nylon 6 Membranes
Y. F. Xu and R. Y. M. Huang 1121

Chain Transfer Constants of Mercaptans in the Emulsion Polymerization of Styrene
B. K. Dietrich, W. A. Pryor, and S. J. Wu 1129

Dependence of Viscoelastic Properties on Segregation Degree of Components in Interpenetrating Polymer Networks
Y. S. Lipatov, V. F. Rosovizky, P. V. Datsko, and Y. Y. Maslak 1143

Characterization of Rubber Particle Size Distribution of High-Impact Polystyrene Using an Image Analysis Method
R. A. Hall 1151

Processing of Polyurethane-Polyester Interpenetrating Polymer Network (IPN)
T. J. Hsu and L. J. Lee 1157

Stirring-Induced Solution Crystallization of Ultra High Molecular Weight Polyamide 6
H. L. Doppert and J. G. Van Dijk 1177

Organotin Polymers. XII. Azeotropy in Binary and Ternary Copolymerization Reactions of Di(tri-*n*-Butyltin) Itaconate with Acrylic Acid Esters, Styrene, and Acrylonitrile
A. F. Shaaban, A. A. Mahmoud, and N. N. Messiha 1191

Mechanism of Accelerated Photofading of Thioether Anthraquinone Dyes in Styrene Butadiene Resins
A. J. Paine, F. M. Winnik, and V. Bocking 1205

Flameproofed Polyesters Prepared by Direct Polycondensation of Aromatic Dicarboxylic Acids and Brominated Bisphenols with Tosyl Chloride and *N,N'*-Dimethylformamide in Pyridine
C.-P. Yang and S.-H. Hsiao 1221

Issue No. 6, September 5th, 1988

Photoelectrochemical Behavior of a Hydroxyaluminum Phthalocyanine Polyvinylpyridine-Iodine Electrode
G. Perrier and H. H. Dao 1235

A Study of the Interaction of Mechanically Generated Polypropylene Radicals with Phenolic Antioxidant in the Absence of Oxygen Using ESR Spectroscopy
Z. Hloušková, J. Lustoň, and F. Szöcs 1245

Effects of Associated Anion on Hydrophilicity of Quaternary Ammonium Cellulose
Wilton R. Goynes and Ruth R. Benerito 1255

Polymers from Renewable Resources. XII. Structure Property Relation in Polyamideimides from Rosin
Sabyasachi Sinha Ray, Achintya K. Kundu, and Sukumar Maiti 1283

Effect of Metal Particle Incorporation on Adhesive and Electrical Properties of Acetylene-Terminated Polyisoimide Prepolymers
R. H. Bott, L. T. Taylor, and T. C. Ward 1295

Mechanical Anisotropy in Oriented Linear Polyethylene of Various Crystallinities
W. P. Leung, C. L. Choy, Changhua Xu, Zongneng Qi, and Renje Wu 1305

Comparison of Thermal and Infrared Spectroscopic Analyses in the Formation of Polyurethane, Unsaturated Polyester, and Their Blends
Y. S. Yang and L. James Lee 1325

Grafting of Vinyl Monomers by the Xanthate Method
Tomasz Graczyk 1343

A Comparison between the Stress-Relaxation Behavior of Molybdenum and Polyethylene
B. Hagström, J. Kubat, and M. Rigdahl 1375

Structure-Property Relationships in Thermoplastic Elastomers. IV. Dynamic Mechanical Relaxations in Polydioxolane, Polybutyltrioxocane, and Poly(propylene Oxide) Polyurethanes
James C. W. Chien and M. K. Rho 1387

Preferential Enrichment of Chemistry at Polymer Surfaces
Leonardo C. Lopez and David W. Dwight 1401

Filler Reinforcement in Electron Beam-Cured Hard Paint Films
Maki Itoh, Toshiaki Shiota, and Minoru Nishihara 1417

Isocyanate-Terminated Polybutadiene Prepolymers: Synthesis, Characterization, and End-Group Modifications
S. P. Vernekar, N. D. Ghatge, and P. P. Wadgaonkar 1433

Sorption of Methyl Orange by Chitosan Gels Having Hydrophobic Groups
Toshihiro Seo, Takaki Kanbara, and Toshiro Iijima 1443

Simultaneous Measurement of Light Transmission and Heat Flow in a Modified Differential Scanning Calorimeter
B. G. Frushour and D. C. Sabatelli 1453

Effect of Crosslink Density and Internetwork Grafting on the Transparency of Polyurethane/Polystyrene Interpenetrating Polymer Networks
V. Nevissas, J. M. Widmaier, and G. C. Meyer 1467

Cellulose Degradation in Xanthate Process
M. R. Padhye and M. M. Deshpande 1475

Studies of Reactions with Polymers. III. Syntheses and Properties of Poly(vinyl Alcohol) Graft Terpolymers
Wen-Yen Chiang and Chun-Min Hu 1479

The Effect of Side Chains on the Partial Specific Volumes of Poly(o-Alkylphenyl Methacrylates) and Polydiitaconates
Ligia Gargallo, Deodato Radić, Nasrollah Hamidi, Leonidas Cardenas, Arturo Horta, and Irmina Hernandez-Fuentes 1495

Measurement of Oxygen Transport Parameters in Polymer Films Initially Saturated with Air
M. M. Alger and T. J. Stanley 1501

Erratum 1513

Issue No. 7, September 20th, 1988

Kinetics of Reaction of Ethylenediamine and Dimeric Fatty Acids
V. Kale, H. S. Vedanayagam, K. S. Devi, S. V. Rao, G. Lakshminarayana, and M. Rao 1517

Electrodeposition of Polyimides from Nonaqueous Emulsions
M. Uebner and K. M. Ng 1525

The Equilibrium Water Content of Some Thermoplastic Hydroxyalkyl Methacrylate Polymers
W. T. K. Stevenson and M. V. Sefton 1541

Optimizing Poly(chloro-*p*-Xylylene) or Parylene C Synthesis
A. K. Sharma, A. W. Hahn, and M. F. Nichols 1555

Far Infrared Birefringenece versus Other Orientational Measurements of High-Pressure Injection-Molded High-Density Polyethylene
A. Boldizar, S. Jacobsson, and S. Hård 1567

Degradation of Acrylamide–Sodium Acrylate Copolymer in Aqueous Solution
H. Kheradmand, J. Francois, and V. Plazanet 1583

Some Physical Properties of Alkali-Treated Bhindi Fiber (*Hibiscus esculentus linn.*)
K. K. Sen, and S. C. Saha, P. Mojumder, and P. K. Ray 1601

Effect of Fillers on Electrical Properties of Epoxy Composites
S. S. Sastry, G. Satyanandam, T. F. S. Raj, and R. Vasanthakumari 1607

Recovery of Uranium from Seawater. VI. Uranium Adsorption Ability and Stability of Macroporous Chelating Resin Containing Amidoxime Groups Prepared by the Simultaneous Use of Divinylbenzene and Ethyleneglycol Dimethacrylate as Crosslinking Reagent
M. Nakayama, K. Uemura, T. Nonaka, and H. Egawa 1617

The Dyeability and Properties of Some Structurally Modified Pole(ethylene Terephthalate) Filaments
S. C. O. Ugbolue and O. E. Ekpenyon 1627

Conducting Polypyrrole Composite Thin Films Chemically Prepared by Spreading on Surface of Aqueous Solution Containing Oxidizing Agent
M. Morita, I. Hashida, and M. Nishimura 1639

Grafted Chain as Spacer for an Insoluble Polymer Ligand. II. Two-step Polymerization Using Tetraethylthiuram Disulfide as an Initiator
K. Arai and Y. Ogiwara 1651

Modification of PAN ny Titanium Dialkyamides: Precursors for Titanium Carbide
K. E. Gonsalves and R. Agarwal 1659

Postcrosslinking of Linear Polyesters. II. UV-Induced Crosslinking Agents Having Carboxyl Reactive Group
H. Inata, T. Morinaga, and S. Matsumura 1667

Studies on Irradiation of Agar–Agar in the Solid State: On the Changes of Water Holding Capacity of Agar–Agar Hydrogel Produced by Irradiation
M. Nisizawa 1673

Polyester Formation: Aminolytic Degradation and Proposed Mechanisms of the Reaction
V. A. Popoola 1677

Properties of Copolymer-Type Polyacetal/Polyurethane Blends
W. -Y. Chiang and M. -S. Lo 1685

Irradiation of Solvent-Treated Cotton Fibers
S. M. Rabie, K. N. Abd-El-Nour, and M. A. Moharram 1701

Mechanical Denaturation of High Polymers in Solutions. XXXIX. Flow-Induced Crystallization of High Molecular Weight Syndiotactic-Rich Poly(vinyl Alcohol)
K. Yamaura, M. Daimoh, T. Tanigami, and S. Matsuzama 1707

Issue No. 8, October 1988

Water–Ethanol Permseparation by Pervaporation through Photocrosslinked Poly(vinyl Alcohol) Composite Membranes
T. Hirotsu, K. Ichimura, K. Mizoguchi, and E. Nakamura 1717

Investigation of Crystalline Changes in LaRC-TPI Powders
T. H. Hou, N. T. Wakelyn, and T. L. St. Clair 1731

Effect of Water Content of Hydrophilic Amidoxime Polymer on Adsorption Rate of Uranium from Seawater
T. Hirotsu, S. Katoh, K. Sugasaka, N. Takai, M. Senō, and T. Itagaki 1741

Surface-Modified Polysulfone Hollow Fibers
A. Higuchi, N. Iwata, M. Tsubaki, and T. Nakagawa 1753

Production of Carbonaceous Adsorbents by Using Novolac-Resin and Cottonseed
J. Simitzis and J. Sfyrakis 1769

Adsorption of Polymer at the Solution-Solid Interface: Alkyd Resin on TiO_2 Pigment
R. Janardhan, P. H. Gedam, S. Kumaran, R. Narasimha, and S. Hussain 1781

Studies on the Glass Transition of Blends of Nylon-6 and Polyacrylic Acid
Y. Jin and R. Y. M. Huang 1799

Studies on the Solvent Exchange Technique for Making Dry Cellulose Acetate Membranes for the Separation of Gaseous Mixtures
A. Lui, F. D. F. Talbot, A. Fouda, T. Matsuura, and S. Sourirajan 1809

Enhanced Compatibility of SAN and PC in Their Blends Exposed to Extremely High Shear Field
H. Takahashi, T. Matsuoka, T. Ohta, K. Fukumori, T. Kurauchi, and O. Kamigaito 1821

Effects of Film History on Gas Transport in a Fluorinated Aromatic Polyimide
M. Moe, W. J. Koros, H. H. Hoehn, and G. R. Husk 1833

High-Performance Composites from Polyimide Matrix Resins that Utilize a Cross Linking Reaction of Biphenylene End-Caps with Acetylene Units in the Main Chain
S. Stoessel, T. Takeichi, J. K. Stille, and W. B. Alston 1847

Persulfate Initiated Aqueous Polymerization of Acrylonitrile at 50°C in an Inert Atmosphere of Nitrogen Gas
S. Sarkar, M. S. Adhikari, M. Banerjee, and R. S. Konar 1865

Study on Ketalization Reaction of Polyvinylalcohol by Ketones. III. Reaction between Polyvinylalcohol and Methyl Ethyl Ketone and Behavior of Polyvinylketal in Water
Naofumi Nakamura, Sadahito Aoshima, and Toshinobu Higashimura 1877

Preparation and Properties of UV-Curable Poly(dimethylsiloxane) Urethane Acrylate. II. Property-Structure/Molecular Weight Relationships
Wen-Yen Chiang and Wey-Jye Shu 1889

Spectroscopic Determination of Copolymer Composition in High Isocyanate Content Polymers
Richard G. Brown and J. Edward Glass 1909

Structures and Gas Permeabilities of Poly(vinylidene Fluoride)/Oligodimethylsiloxane Blend Membranes
Kyu Tak Howang, Kazutoshi Iwamoto, and Manabu Senō 1925

History Dependence of Diffusion Coefficients for Glassy Polymer-Penetrant Systems
J. S. Vrentas and A.-C. Hou 1933

Information for Contributors 1938

Author Index 1941

Subject Index 1955

Volume Contents i